

### REMARKS

This communication responds to the Office Action dated December 10, 2008.

Claims 1-9 are amended, and claim 10 is canceled; as a result, claims 1-9 are now pending in this application.

### Objections to the Drawings

The drawings were objected to under 37 C.F.R. § 1.83(a) because the drawings must show every feature of the invention specified in the claims. In particular, “a first reference current input,” “a second ratioed current input,” “a first ratio control input,” “a current input,” and “a second ratio control input” must be shown. Applicant respectfully submits that the drawings are in compliance with 37 C.F.R. § 1.83(a).

In reference to Figure 5b, pg. 25 lines 2-3 of the Specification (§0112 of the Publication) states that ratio control current mirror 550 has an input 552 for receiving a first referenced current. Thus, a first reference current input is shown in Figure 5b.

Claim 1 recites “a first, reference current input [552] to receive a reference current for driving a first of said plurality of row electrodes; [and] a second, ratioed current input to receive a ratioed current for driving a second of said plurality of electrodes.” Figure 5b shows input 552 and input 554 connected to the row electrodes. Thus, a second, ratioed current input (554) is shown in Figure 5b. The reason that this current input is a ratioed current input is explained in the Specification on pg. 25 lines 1-6.

Figure 5b further shows ratio control current mirror 550 having two “RATIO CONTROL” inputs coupled to controllable current sinks 517. Page 25 lines 5-6 of the Specification refer to “a ratio of control inputs defined by controllable current generators 517.” Thus, first and second ratio control inputs are shown connected to the two current sinks 517 in Figure 5b.

Claim 1 recites “a controllable current mirror having ... a current input coupled to said reference current input.” In Fig. 5b, current mirror 550 shows an input “IN” coupled to the reference current input 552. Additionally, Figure 5d shows a programmable current mirror having a current input coupled to 552. Thus, a current input is shown in Figures 5b and 5d.

In sum, “a first reference current input,” “a second ratioed current input,” “a first ratio control input,” “a current input,” and “a second ratio control input” are shown, and the drawings are in compliance with 37 C.F.R. § 1.83(a). Withdrawal of the objection to the drawings is respectfully requested.

*Objections to the Specification*

1. The Specification was objected to because the specification lacks section headings for the content of the specification. The Specification is amended a shown above to add headings. Withdrawal of the objection to the Specification is respectfully requested.
2. The Abstract was objected to because the Abstract repeats information given in the title and includes terms such as “said.” The Abstract is amended to include the changes required by the Office. Withdrawal of the objection to the Abstract is respectfully requested.
3. The Disclosure was objected to because it contains an embedded hyperlink and/or other form of browser-executable code on page 24 of the specification (this corresponds to our page 18). The Specification is amended to remove the hyperlink. Withdrawal of the objection to the Specification is respectfully requested.

*§ 112 Rejection of the Claims*

1. Claims 1-9 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, the Office rejected these claims as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections.

Claims 1 and 2 were amended to clarify the present subject matter. Applicant respectfully traverses the rejection as applied to the claims in their present form because it is believed that the cooperative relationship between “a first reference current input,” “a second ratioed current input,” “a first ratio control input,” “a current input,” and “a second ratio control input” is clear.

Regarding the structural cooperative relationship of “the first reference current input” and “the second ratioed current input,” claim 1 specifies that the [first] reference current input and the [second] ratioed current are coupled to a controllable current mirror. This results in the sum of said column currents being divided in proportion to said ratio of said ratioed current to said reference current. Thus, the structural cooperative relationship between the “first reference current input” and “the second ratioed current input” is clear.

Regarding “the first ratio control input,” claim 1 specifies that “the first ratio control signal” is coupled to the controllable current mirror (via the first current generator control input) as are as “the first reference current input,” and “the second ratioed current input.” A signal on the current generator control input controls ratio of the currents. Thus, a structural cooperative relationship between “the first ratio control input,” “the first reference current input” and “the second ratioed current input” is clear.

Regarding “the current input,” claim 1 specifies that the controllable current mirror has a current input coupled to the [first] reference current input. Thus, a structural cooperative relationship between “the current input” and “the first reference current input” is clear.

Regarding “the second ratio control input,” claim 2 specifies that “the second ratio control signal” is coupled to the to the controllable current mirror (via the second current generator control input) as are “the first reference current input,” and “the second ratioed current input.” Thus, a structural cooperative relationship between “the second ratio control input,” “the first reference current input” and “the second ratioed current input” is clear.

Therefore, the structural cooperative relationship between “a first reference current input,” “a second ratioed current input,” “a first ratio control input,” “a current input,” and “a second ratio control input” is clear, and withdrawal of the objection is respectfully requested.

#### § 102 Rejection of the Claims

1. Claims 1-9 were rejected under 35 U.S.C. § 102(e) as being unpatentable over Abe et al. (U.S. Publication No. 20050024300 A1, hereinafter “Abe”). Claims 1-9 are amended to clarify their subject matter. Some examples of support for the amendments can be found in the Specification on pages 23 and 25 (Paragraphs 0106-0113 in the Publication) and in Figures 5b, 5d, and 5e.

Applicant respectfully traverses the rejection as applied to the claims in their present form and submits that a proper *prima facie* showing of anticipation has not been established for these claims.

Abe relates to an organic EL panel drive circuit and a control circuit.<sup>1</sup> The control circuit controls detected current in such a manner that the detected current becomes equal to the reference current and the current distributed to terminal pins becomes the reference current.<sup>2</sup> It can be seen that Abe is concerned with reducing variation in drive current of the EL panel,<sup>3</sup> and is not concerned, as recited in claim 1, with driving a plurality of row electrodes with a plurality of column currents such that a sum of the column currents is divided between the row electrodes in a variable ratio. To this end, Abe does not anticipate the these claims because Abe fails to teach each and every element recited or incorporated into the claims.

For example, Applicant cannot find in Abe any disclosure of, among other things, current generator being configured such that a signal on said first current generator control input controls a ratio of said ratioed current to said reference current such that said sum of said column currents [divided between row electrodes] is divided in proportion to said ratio of said ratioed current to said reference current,

as presently recited in claim 1 and incorporated into claims 2-8, nor can Applicant find a method comprising

using a controllable current mirror such that a sum of said column currents is divided between said row electrodes in a controllable variable ratio,

as presently recited in claim 9.

Abe fails to disclose a ratioed current. The Office indicates that this is shown in ¶0024 of Abe.<sup>4</sup> However, the cited portions of Abe do not disclose any ratio current but instead refers to a output current corresponding to a first current that becomes substantially equal to the reference

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<sup>1</sup> Abe, Abstract.

<sup>2</sup> Abe, Abstract.

<sup>3</sup> Abe, ¶0002.

<sup>4</sup> Office Action, pg. 9.

current.<sup>5</sup> Additionally, Abe states that the reference current is distributed to the respective terminal pins.<sup>6</sup>

The only place in Abe that refers to a ratio is a discussion of transistor ratios in ¶0073. However, this is apparently only in regard to generating the reference current, and the drive currents are still equal to the reference current so that variation of the output currents at the terminal pins is improved.<sup>7</sup> Thus, Abe does not disclose using a controllable current mirror such that a sum of said column currents is divided between said row electrodes in a controllable variable ratio. And in fact, because Abe teaches keeping the output currents substantially equal to the reference current, Abe actually teaches away from the ratioed current.

Therefore, Abe does not teach each and every element recited in or incorporated into these claims. Consequently, Applicant respectfully requests withdrawal of the rejection and allowance of claims 1-9.

2. Claim 10 was rejected under 35 U.S.C. § 102(b) as being unpatentable over Routely (GBP 85906). Claim 10 is cancelled.

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<sup>5</sup> Abe, ¶0024.

<sup>6</sup> Abe, ¶0044.

<sup>7</sup> Abe, ¶0072.

**CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's representative at (612) 371-2172 to facilitate prosecution of this application.

If necessary, please charge any additional fees or deficiencies, or credit any overpayments to Deposit Account No. 19-0743.

Respectfully submitted,

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**CERTIFICATE UNDER 37 C.F.R. 1.8:** The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on March 27, 2009.

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